IMPACT OF OPD WAITING TIME ON PATIENT SATISFACTION

Dr (Brig) Anil Pandit [1] | Er Lalit Varma [2] | Dr. Amruta. P. [3]

[1] MD(HA) DNB(H&HA). Prof, Symbiosis Institute of Health Sciences, SB Road, PUNE-04.

[2] BE.PhD Scholar, Symbiosis Institute of Health Sciences, SB Road, PUNE-04.

[3] MBBS.MD, Post Graduate Sudent, Dept of Pharmacology, St. John's Medical College, Bangalore.

ABSTRACT

OPDs are described as the face of any hospital, as it is often one of the first points of contact between patients and the hospital. The impression about a hospital's OPD often influences the patients' sensitivity towards the hospital. Therefore it is essential to ensure that OPD services provide an excellent experience to the customers. With the increase in the outpatient volume and patient flow, there may be an increase in the blockages, which in turn, increases the waiting time. Patients perceive long waiting times as barriers to actually obtaining services.

Reducing waiting time and making sure that patients receive the right care at the right time, will have a significant beneficial effect on the quality of care patients receive. In turn, this will improve patient outcomes and reduce the cost of care.
A study was carried out in a Tertiary Care Hospital in Pune to determine the average time spent by the patient in the OPD, to identify the factors leading to high waiting time and assess the patients experience regarding the Out Patient service provided by the hospital.

It was found that the average time a patient spends in the OPD was 60mins. The major bottleneck causing this high waiting time was found to be the waiting time for consultation which was 40 minutes on an average. Information gathered during the survey also revealed that 33% patients waited for 30- 60mins for the doctor while 32% patients waited for over an hour. This was one of the major causes of discontent among the OPD patients to which a fall in OPD numbers can be attributed.

KEYWORDS: Out Patient Department (OPD), patient satisfaction, waiting time, Tertiary Care Hospital (TCH), Root Cause Analysis, Statistical Package for the Social Science (SPSS), consultation, appointment, dissatisfaction, Hospital Information System (HIS), services.

Introduction

Out Patient services are the most important service provided by the hospital as it provides services to a large number of patients at affordable cost. The utilization of many of the other services provided by the hospital, often depend on how satisfied the patient is with the outpatient services provided. It is also well- established that 8-10 per cent of OPD patients need hospitalisation. When well organised and professionally run, not only can such OPDs help avoid confusion, frustration and overspending by fearful patients but can also regulate the flow of inpatients to the hospitals.

Patients waiting time has been defined as "The length of time from when the patient enters the outpatient department to the time the patient actually leaves the OPD".[1]

Usually it is observed that patients at the hospital OPDs have to wait for a disproportionately long time before they can get medical treatment or advice by professional healthcare workers. Long waiting time in hospitals causes discontent among patients. In a competitively managed healthcare environment, long waiting time of patients in an OPD adversely affects the hospitals ability to attract new increased business. It is difficult to sell services if individuals are dissatisfied with the delayed process and increased waiting time.[2] Because of great volume of ambulant patients in most communities, an efficient outpatient department (OPD) in hospital is clearly of critical importance. This is more because of lower cost of outpatient services compared to inpatients.[3]

There are many indicators of quality assurance in hospitals. In outpatient departments, one of the important indicators of quality assurance for patients is "waiting time". Hence it is detrimental for a hospital on the whole to have long OPD waiting time.

The Tertiary Care Hospital (TCH) in Pune is a state of the art hospital which has been set up by the pioneers of health care in Pune. It is a 120 bedded multispecialty hospital which is equipped with premium facilities and high tech infrastructure. It is an NABH accredited hospital which prides itself on high quality service and care.

Owing to their dedication to provide quality care as per their boutique status, the TCH aims to reduce the waiting time in the OPD and increase patient satisfaction.

Aim: To analyse the waiting time in the OPD and assess its impact on patient satisfaction.

Objectives:
- To determine the average time spent by the patient in the OPD.
- To identify the factors responsible for prolonged waiting time in the OPD.
- To study the causes of the delays and suggest interventions
- To assess the patients satisfaction with the OPD services provided.

Scope:
- The immediate and major cause for increased waiting time can be assessed and rectified.
- The idle time of OPDs can be ascertained and means to schedule OPDs accordingly with a view to reduce peak workload can be done.
- Patient's satisfaction regarding OPD services can be measured.

Limitations:
- Corporate patients and those visiting multiple doctors were excluded.

Literature Review:
Out Patient Department (OPD)
OPD is defined as a part of the hospital with allotted physical facilities and medical and other staff in sufficient number, with regular scheduled hours, to provide care for patients who are not registered as in patients.

The OPD forms the façade of the hospital and is invariably one of the most important services provided by the hospital. It witnesses maximum footfall daily when compared to any other department in the hospital. These facts simply highlight the importance of efficient and effective OPD management. If run effectively, the OPD can lessen the burden on the inpatient department dramatically.

A major problem faced by the hospitals when it comes to running the OPD is the extended waiting periods and overcrowding. The waiting period is one of the most important indicators of quality of service. Thus a prolonged waiting time directly reflects on the quality of service being provided.

The patient spends substantial amount of time in the clinics waiting for services to be delivered by physicians and other healthcare professionals. The degree to which health consumers are satisfied with the care received is strongly related to the quality of the waiting experience. Healthcare organisations that strive to deliver exceptional services must effectively manage their clinic wait.[4] Failure to incorporate consumer driven features into the design of wait experience could lead to patient and provider dissatisfaction.

Waiting time refers to the time a patient waits in the clinic before being seen by one of the clinic medical staff.[5] Patient clinic waiting time is an important indicator of quality of services offered by the hospitals.[6] The amount of time a patient

waits to be seen is one factor which affects utilization of healthcare services.[7] Keeping patients waiting unnecessarily can be a cause of stress for both patient and doctor. Waiting time is a tangible aspect of practice that patients will use to judge health personnel, even more than their knowledge and skill.

Waiting time is the time required just after patient's arrival at the OPD to meet his health needs. It is the total time elapsed in circulating the patient from oneroom to another. These include the time spent for collecting the treatment ticket, for attending the physician, for submission of samples for investigations and for collecting medicines including receiving instructions for their use. Patient's waiting depends on many factors including efficiency, sincerity and punctuality of the health care providers as well as the existing facilities of the institution.[8]

The Institute of Medicine (IOM) recommends that, at least 90% of patients should be seen within 30minutes of their scheduled appointment.[9] This is however, not the case in most developing countries, as several studies have shown that patients spend 2-4 hours in the outpatient departments before seeing a doctor.[10,11,12] A source of dissatisfaction with healthcare reported by patients is having to wait a long period of time in the clinic and several studies have documented the negative association between increased waiting time and patient satisfaction with primary care.[13,14]

In the recent past, studies on patient satisfaction gained popularity and usefulness as it provides the chance to healthcare providers and managers to improve the services in the public health facilities. Patient's feedback is necessary to identify problems that need to be resolved in improving the health services. Even if they still do not use this information systematically to improve care delivery and services, this type of feedback triggers a real interest that can lead to a change in their culture and in their perception of patients.[15]

Improving patient's satisfaction towards healthcare services by reducing their waiting time, attending the patient in time and sympathetic approach will create a positive image of hospital in the minds of people and will also help the hospital to build an image in the community.

By decreasing waiting and treatment times, costs can be reduced, while increasing accessibility. Hall et al. (2006, p.8) stated three goals that benefit from healthcare delay reduction are: waiting time reduction for needed service, timeliness for reaching the service, and elimination of inefficient activities.Hence, the operational cost is reduced.

Methodology
Research Design- The research design used in this study is both 'Descriptive' and 'Exploratory'.

Study Population
All patients who came for OPD visit at the Tertiary Care Hospital.

Quantitative Method of Study-Observational time-motion study
The details of patients, time of his/her entry, the time taken by the patient to move through various departments, till the exit of the patient was noted and recorded

Qualitative Method of Study- A Patient Experience Feedback questionnaire was administered to the OPD patients. Questionnaire administered is as given in the appendix.

This survey was conducted after obtaining the waiting time data. Hence, the rationale behind this feedback was to assess the impact the waiting time had on the patient's satisfaction.

Sample Size – 200

Inclusion Criteria
• Male/Female clients who were above 18years.
• Willingness toparticipate

Exclusion criteria
• Customers with severe physical or mentalimpairment
• Returning customers who already filled thequestionnaire
• CorporatePatients.

Observations & Analysis
By analysing the OPD count of the past 6 months a steady decline in the patient count was found-

Table 1- OPD Patient Count

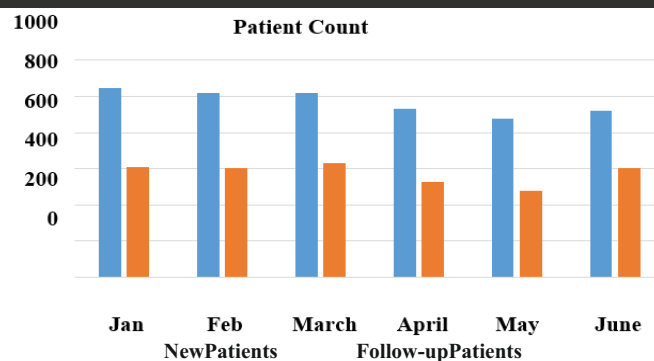|	Jan	Feb	March	April	May	June
New Patients	1048	1018	1019	934	877	920
Follow-up Patients	610	604	629	529	476	604
Total	1658	1622	1648	1463	1353	1524

Fig.1 OPD Patient Count

Due to the above mentioned trend a study was conducted to evaluate the reasons for OPD fallout and analyse the patients experience in the OPD.

The time motion study conducted in the OPD showed the various bottlenecks in the OPD patient flow which caused increased waiting time.
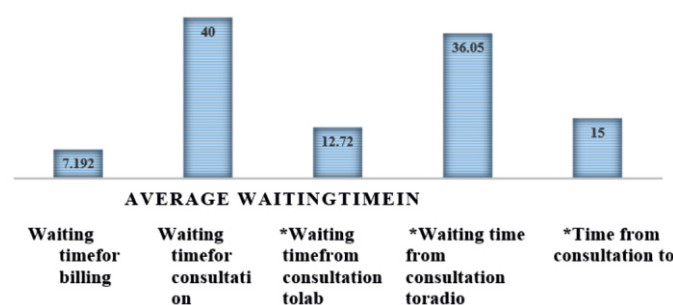

Fig.2 –Average Waiting Time

The waiting time from consultation / lab to radiology, reception to radiology, etc. are partly dependent on the decision making time taken by the patient and are not very significant in nature since the sample size is inadequate.

However, the most important bottleneck in the entire OPD patient flow is the waiting time for consultation.
• Average = **40minutes**
• Appointment Patients = **45.17minutes**
• Walk inPatients = **39.93minutesObservations&Analysis :**

Using statistical tools like Fishbone diagrams i.e. Cause – **Effect analysis.**

The Cause & Effect or Fishbone Diagram, was first used by Dr. Kaoru Ishikawa of the University of Tokyo in 1943 - hence it is frequently referred to as an "Ishikawa Diagram". This diagram is used to identify all of the contributing root causes likely to be causing a problem. This methodology can be used on any type of problem, and can be tailored by the user to fit the circumstances.

A cause and effect diagram, often called a "fishbone" diagram, can help in brainstorming to identify possible causes of a problem and in sorting ideas into useful categories. A fishbone diagram is a visual way to look at cause and effect. It is a more structured approach than many other tools available for analysing the causes of a problem. The problem or effect is displayed at the head or mouth of the fish. Possible contributing causes are listed on the smaller "bones" under various cause categories. A fishbone diagram can be helpful in identifying possible causes for a problem that might not otherwise be considered by directing the team to look at the categories and think of alternative causes.

Root CauseAnalysis-
1. Cause and Effect Diagram for first bottleneck (Increased waiting time for billing)
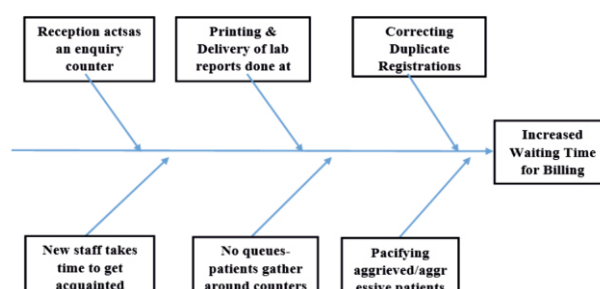

Fig.3 – Cause & Effect Diagram for first bottleneck

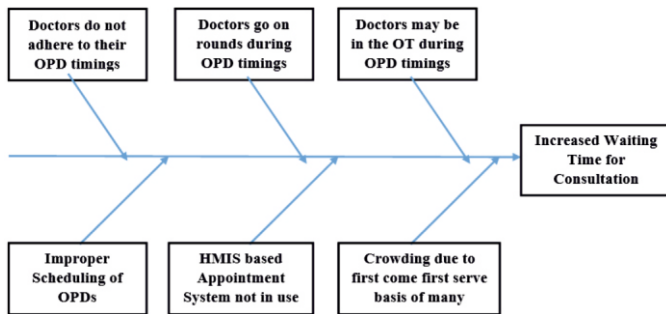2.Cause and Effect Diagram for second bottleneck (Increased Waiting time for Consultation)

Fig.4– Cause & Effect Diagram for second bottleneck

3. Cause and Effect Diagram for third bottleneck (Increased waiting time from consultation tolab)
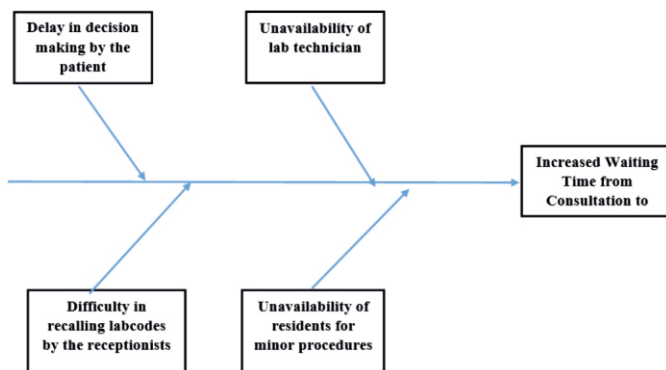

Fig.5 – Cause & Effect Diagram for third bottleneck

Patient Experience Feedback-
A pre tested Questionnaire was administered to a sample of 200 OPD patients in a cross sectional descriptive research consisting of to 106(53%) female and 94(47%) male patients.

Analysis – Using SPSS software.
SPSS is the acronym of Statistical Package for the Social Science. SPSS is a popular statistical software package which can perform highly complex data manipulation and analysis with simple instructions. It is designed for both interactive and non-interactive uses. Originally produced by SPSS Inc., it was acquired by IBM in 2009. The current versions (2015) are officially named IBM SPSS Statistics.

SPSS is a comprehensive system for analysing data. SPSS can take data from almost any type of file and use them to generate tabulated reports, charts, and plots of distributions and trends, descriptive statistics, and complex statistical analysis.

SPSS consists of an integrated series of computer programs which enable the user to read data from questionnaire surveys and other sources (e.g. medical and administrative records) to manipulate them in various ways and to produce a wide range of statistical analyses and reports, together with documentation.

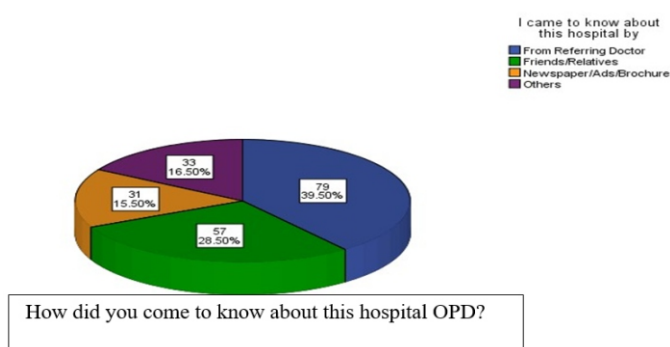The results obtained were as follows:

Fig. 6 – Sources giving information about Hospital OPD

39.50% were told about the hospital OPD by their referring doctor, 28.50% from friends/relatives, 16.50% from other sources (living near the hospital), and 15.50% from newspaper/ads/brochures.
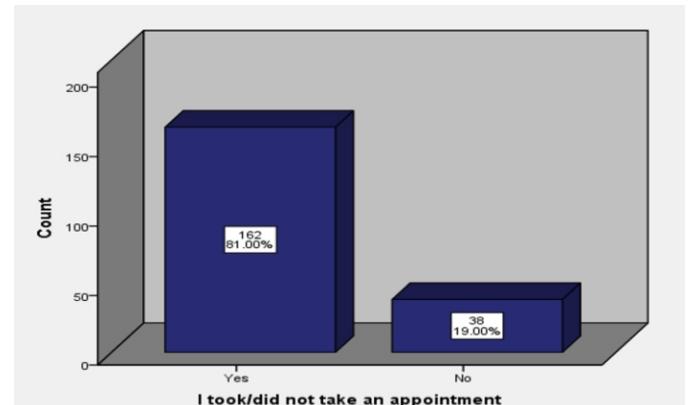

Fig. 7 – No. of Appointment & Walk-in patients

The number of patients who took a prior appointment were 162(81%) while 38(19%) patients were walk in patients.
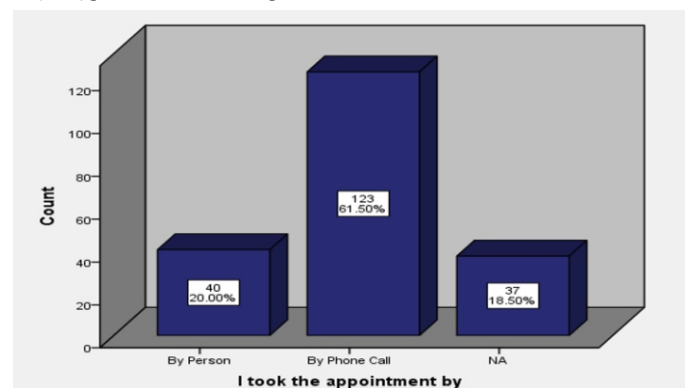

Fig. 8 – Mode of appointment

Mode of appointment – 20 %(40) patients took an appointment by person, 61.50 %(123) took an appointment by phone call and 18.50 %(37) did not take any appointment.
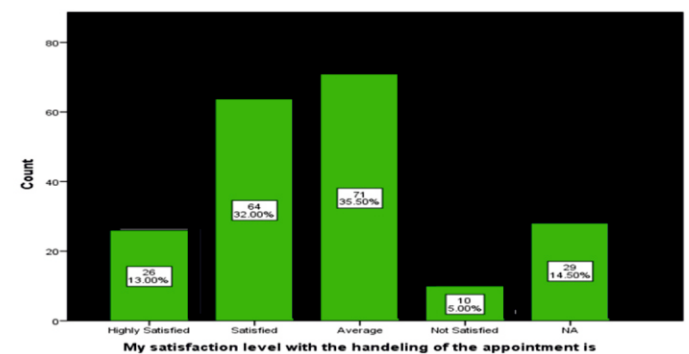

Fig. 9 – Satisfaction level regarding handling of OPD appointment

35.5% patients rated the handling of the OPD appointment as average, 32% as satisfactory, 13% were highly satisfied whereas 5% were not satisfied.
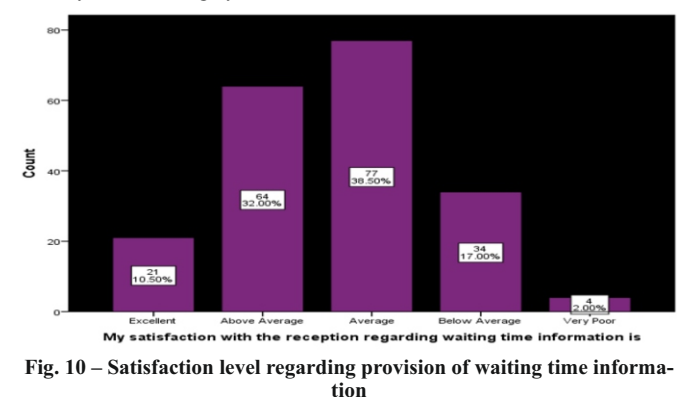

Fig. 10 – Satisfaction level regarding provision of waiting time information

38.5 patients rated the information provided about the amount of time they would have to wait as average, 32% as above average, 17% as below average, 10.5% as excellent and 2% as very poor.
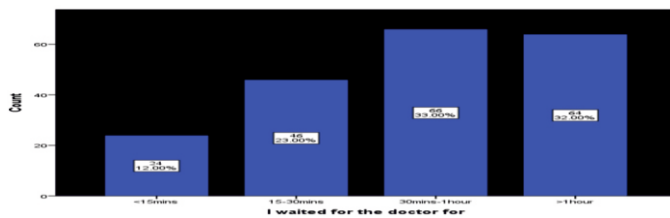

Fig. 11-Duration of wait for a doctor

33% patients said that they waited for the doctor for 30mins-1hour, 32% for over 1hour, 23% for 15-30mins and 12% said they waited for below 15minutes.
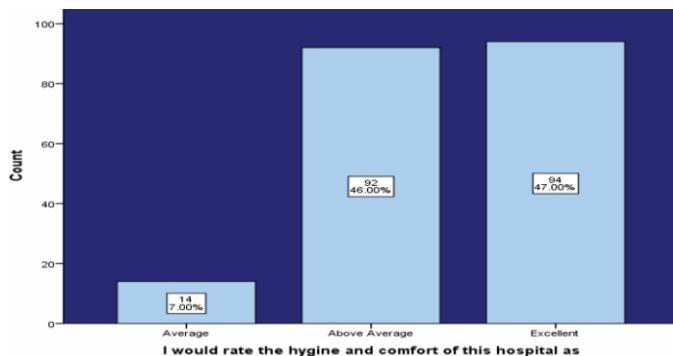

Fig. 12 – Hygiene & comfort rating

47% patients rated the hygiene and comfort of the hospital OPD as excellent, 46% as above average and 7% as average.

Patients were also permitted to suggest any improvements in the OPD. The results of which are-
• 37% suggested that the doctors must come "ontime".
• 31% suggested that OPD appointments should be givencorrectly.
• 19% complained that the receptionist were unable to attend to them since they were attending phonecalls.
• 16% suggested a display of consultant timings of the entireweek.

Recommendations-
1. The following recommendations were made to reduce waiting time for billing:
• Displaying the consultant's timings in the OPD, as well as online will reduce the number of enquiries made by thepatients.
• Introducing online appointment bookings.
• Lab reports should be dispatched at the lab counter and not in the OPD area or a separate counter for lab report dispatch and appointments.
• Proper training of the staff.
• Fixed Consultant timings and OPDrooms

2. The following recommendations were made to reduce waiting time for consultation:
• Patient Centric OPD scheduling, thus increasing utilization.
• Doctors should be advised to adhere to their allottedslots.
• Rounds should be taken prior to or after the OPDhours.
• There must be co-ordination between OPD hours and OT timings (in case of electivesurgeries).
• Use of HMIS based appointment system.

3. The following recommendations were made to reduce waiting time for lab:
• All codes must be made available in a soft format to the receptionists.
• Lab technician must be available at all times.
• Residents or junior doctors must be made available or, in case of unavailability, casualty MOs can carry out minorprocedures.

4. Recommendations made after analyzing the patient experience feedback-
• The receptionist staff must be trained to attend phone calls efficiently.
• Once the OPD schedule is finalized, appointments should be taken directly onto the HIS scheduling system. A system generated SMS can be sent to the patient confirming his/her OPDtiming.
• Staff working in the OPD, patients & their relatives also are the best source for obtaining information regarding the enhancement of patient satisfaction in the hospital.

Conclusion-
The objective was to determine the various causes of increased waiting time in the OPD and do a root cause analysis of the same, thus reducing the bottlenecks

in the entire process. The two major bottlenecks were found to be waiting time for consultation and waiting time for billing.

Two categories of patients were observed- those with appointment and those without (walk in). An unusual observation regarding the waiting time of these 2 categories of patients was made – the patients who took an appointment had a longer waiting time than those who didn't. This was due to improper handling of appointments and disuse of HIS based appointment system. Rescheduling of the various OPDs would help in reducing the waiting time and thus reduce peak workload for the staff.

The patient experience feedback was done to assess the satisfaction level among the OPD patients and look for improvements that can be made. This will bring about efficiency in healthcare delivery and increased patient satisfaction.

REFERENCES-
1. Prof. Dinesh T.A, Prof. Dr. Sanjeev Singh, Prem Nair, Remya T R. Reducing Waiting Time in Outpatient Services of a large University Teaching Hospital. Management in health XVII/1/2013; pp.31-37.
2. Mackey TA, Cole FL. Patient waiting time in Nursing Managed Clinic. The int. j. Adv. Nur.Practice. 1997;1:1.
3. Hoque MS. In: Hospital and Health Care Management, First edition. Dhaka.1994:36-40.
4. Rondeau KV, Managing the clinic wait: An important quality of care challenge. J Nurse Care Qual.1998; 13:11-20.[PubMed]
5. Rossiter CE, Raynolds FA. Automatic monitoring of the time waited in an outpatient clinic.; Journal Storage: Med Care.19681:218-25
6. Maxwell RJ. Quality assessment in health. Br Med J (Clin Res Ed) 1984; 288:1470-72[PubMed]
7. Fernandes CM, Daya MR, Barry S, Palmer N. Emergency Department patients who leave without seeing a physician: The Toronto Hospital experience. Ann Emerg Med.1994;24:1092-6[PubMed]
8. Gibony Jr. MC., In: Principles of Health Administration, Second edition New York'; GP Putnam's Sons,1959.
9. O'Malley MS, Fletcher SW, Fletcher RH, Earp JA. Measuring patient waiting time in a practise setting: A comparison of methods. J Ambul Care Manage. 1983;6:20-7[PubMed]
10. Singh H, Haqq ED, Mustapha N. Patients perception and satisfaction with healthcare professionals in Trinidad and Tobago. Bull World Health Organ.1999;77:356-60[PubMed]
11. Ofilli AN, Ofowve CE. Patient's assessment of efficiency of services at a teaching hospital in a developing country. Ann Afr Med.2005;4:150-3.
12. Ofilli AN, Ofowve CE. What patients want: A content analysis of key qualities that influence patient satisfaction. J Med Pract Mange.2007; 22:255-61[PubMed]
13. Dansky KH, Miles J. Patient satisfaction with ambulatory healthcare services: Waiting time and filling time. Hosp Health Serv Admin.1997; 42:165-77.[PubMed]
14. Huang XM. Patient attitude towards waiting in an outpatient clinic and its applications. Health Serv Mange Res.1994;7:2-8[PubMed]
15. Boyer L, Francois P, Doutre E, Weil G, Labarere J. Perception and use of results of patient satisfaction surveys by care providers in a French teaching hospital. Int J Qual Health Care.2006;18:359-64[PubMed]

Appendix

Patient Experience Feedback

1. Name- _____   UHIDNo.- _____

2. Age- _____

3. Sex- _____

4. Occupation- _____

5. Residential Locality- _____

6. How did you know about this hospital OPD?

    ○ From Referring Doctor   ○ Friends/Relatives   ○ Newspaper/Ads/Brochures   ○ Others _____

7. Did you take an appointment or make an enquiry about the doctor's availability?
    ○ Yes   ○ No

8. If yes, how was the appointment taken?
    ○ By Person   ○ By Phone Call   ○ Not Applicable

9. How satisfied are you with the way your appointment was taken/phone call handled?
    ○ Highly Satisfied   ○ Satisfied   ○ Average   ○ Not Satisfied   ○ Not Applicable

10. How would you rate the reception staffs guidance and information regarding waiting time upon arrival in the OPD?
    ○ Excellent   ○ Above Average   ○ Average   ○ Below Average   ○ VeryPoor

11. How much time did it take you to meet your doctor after yourarrival?
    ○ <15mins   ○ 15-30mins   ○ 30mins-1hour   ○ >1hour

12. How would you rate the hygiene and comfort of the hospitalOPD?
    ○   ○   ○   ○   ○
    1   2   3   4   5

(1 being the lowest and 5 being the highest rating)

13. Any other suggestions for improvement in theOPD